



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,168	09/01/2000	Atsushi Kanke	381AS/49211	5472

23911 7590 10/22/2002

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

DICKENS, CHARLENE

ART UNIT PAPER NUMBER

2855

DATE MAILED: 10/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/653,168

Applicant(s)

KANKE et al.

Examiner

DICKENS

Group Art Unit

2855

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ R sponse to communication(s) filed on 5/21/02 & 7/24/02

☒ This action is FINAL CD 10/21/02

- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-33

is/are pending in the application.

Of the above claim(s)

is/are withdrawn from consideration.

☒ Claim(s) 1-28

is/are allowed.

☒ Claim(s) 29-33

is/are rejected.

☐ Claim(s)

is/are objected to.

☐ Claim(s)

are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 3, it is not clear what the maximum specified measuring range, thus rendering the last clause of the claims ambiguous. Claims 3 and 18, it is unclear what is the difference between the first value, second value and a value. In claims 12 and 22, it is unclear what is a burn out. In claims 13 and 23, it is not clear what is the predetermined value and how it is calculated.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. Suzuki et al., as best understood, teaches a hot-wire type air flow meter comprising: an exothermic resistor film 1A provided on a thin portion formed on a silicon

substrate 4 and arranged in a measuring fluid (Fig. 2); and a control circuit (Fig. 3), wherein said resistor film is arranged in a suction pipe (col. 5, lines 22, 23) of the internal combustion engine (col. 1, lines 5-14) and emits heat to an air through said resistor film, and in the case where a liquid droplet is deposited onto said resistor film (col. 5, lines 25-45), said control circuit controls said applied voltage to a value smaller than a voltage which is applied to said resistor film at the time of measuring a maximum specified measuring range or controls said supply current to a value smaller than a current flowing in said resistor film at the time of measuring the maximum specified measuring range (col. 5, lines 35-40); another exothermic resistor 1B provided on said silicon substrate in a portion other than said thin portion; first limiting means 7A for limiting said applied voltage or said supply current to a value which is equal to or less than a first value; and second limiting means 7B for limiting said applied voltage or said supply current to a value which is equal to or less than a second value smaller than said first value; changing means (6A, 6B) for changing a predetermined value or said second value on the basis of a temperature of the liquid droplet or a measuring fluid; wherein said changing means changes the value so as to reduce said predetermined value or said second value when said resistance value increases or changes the value so as to increase said

predetermined value or said second value when said resistance value decreases; wherein a heat generation of said another exothermic resistor is controlled independent of said exothermic resistor.

4. Applicants' arguments filed 5/21/02 and 7/24/02 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies the applied voltage or current to the resistor film is limited to a value smaller than a voltage or current which is applied to the resistor film at the time of measuring a maximum specified measuring are not clearly defined in the rejected claim(s) and thus as best understood the reference teach the limitations.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dickens whose telephone number is (703) 305-7047. Any inquiry of a general nature or relating to the status of this application

Application/Control Number: 09/653,168
Art Unit: 2855

Page 5

should be directed to the receptionist or the customer service representative whose telephone numbers are (703) 308-0956 or (703) 308-4800 respectively. The fax numbers are (703) 305-3431 and (703) 305-3432.



cd/dickens
October 21, 2002



Benjamin R. Fuller
Supervisory Patent Examiner
Technology Center 2800